DOCUMENT RESUME

ED 241 578 TM 840 118

AUTHOR Adams, Morgan; And Others
TITLE Evaluation Report on HOSTS Program in the Portland Public Schools.
INSTITUTION Portland Public Schools, OR. Research and Evaluation Dept.
PUB DATE 83
NOTE 40p.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Achievement Gains; Elementary Education; *Individual Instruction; *Low Achievement; *Program Effectiveness; Program Evaluation; *Reading; *Tutors; Validated Programs
IDENTIFIERS *Helping One Student To Succeed; *Portland School District OR

ABSTRACT

HOSTS, "Helping One Student To Succeed," is a nationally-validated Chapter I program adopted by 24 schools in the Portland School District. It was designed to help low performers learn to read by providing individualized instruction on a one-to-one basis through the use of trained volunteer tutors. The HOSTS curriculum is designed as a reading program that consists of six major skill areas: reading readiness, phonetic analysis, structural analysis, vocabulary development, comprehension, and study skills. This evaluation, conducted to investigate the effects of the program, compared the achievement gains of Chapter I students who were in the HOSTS program with three different populations: (1) Non-HOSTS, i.e., students in the same grades and schools who received other Chapter I reading instruction; (2) District Chapter I students; and (3) all District students. The achievement growth of all HOSTS students in 1982-83 was compared with their achievement growth in 1981-82. Student achievement was measured by the results of the Comprehensive Test of Basic Skills and the Portland Achievement Levels Tests. Based on research findings, it was concluded that HOSTS produced positive, non-significant gains, results which are better than the average of other Chapter I supplementary programs, but are not significantly better. (PN)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED241578

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

EVALUATION REPORT ON HOSTS PROGRAM IN THE PORTLAND PUBLIC SCHOOLS

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

G. Ingebo

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Research and Evaluation Dept.
Portland Public Schools
Portland, Oregon
Walter E. Hathaway, Director

Morgan Adams
George Ingebo
David Leitner
Peggy Miller

TM 840 118

HOSTS

"HELPING ONE STUDENT TO SUCCEED"

INTRODUCTION

HOSTS is a nationally validated Chapter I exemplary program adopted by 24 schools in the Portland School District. It has operated in three schools since 1979-80, 19 more since 1981-82, and two more since 1982-83. Twenty-one of the 24 schools are Chapter I schools and adopted HOSTS as their Chapter I reading project. The three non-Chapter I schools also used HOSTS as supplemental reading instruction for low performing students, but supported it by general fund monies.

HOSTS was designed to help low performers learn to read by providing individualized instruction on a one-to-one basis through the use of volunteer tutors. The diagnostic, prescriptive and instructional procedures were specified by program guidelines and were essentially the same for all schools. HOSTS students were tested individually by the HOSTS teacher at the beginning of the year with an individual reading inventory (Silvarolli or John's). Results from the individual reading inventory were used to place students at the proper test level in the Fountain Valley Developmental Skills Test which identified individual skill deficiencies, and to identify the students independent, instructional and frustration reading levels. The HOSTS Survey of Developmental Tasks was administered to students who scored below the range of the Fountain Valley. After twelve to fifteen skill deficiencies were identified, teachers wrote long-range individual prescriptions and daily lesson plans based on the long-range prescriptions. The daily lesson plans were implemented by trained volunteers under the direction of the teacher. Usually, students were instructed in two objectives per session and continued in an objective until mastery was achieved which was determined by informal testing or by administering specific portions of the Fountain Valley. HOSTS students received instruction for 30 minutes a day, four days a week from a tutor. Testing and teacher planning was scheduled for the fifth day. Students were tested at mid-year and at the end of the year using the individual reading inventory to measure progress and to determine if students retained those skills that were mastered.

HOSTS CHARACTERISTICS IN PORTLAND SCHOOLS

Student Selection

Chapter I eligibility requirements (i.e., a P score of 43 or below and/or teacher judgment) were used for selecting HOSTS students in the 21 Chapter I schools. Additional criteria were established at 14 of the 21 Chapter I schools who had the choice of placing students in either HOSTS or other Chapter I instructional programs. Schools used different criteria such as selecting low Chapter I students, high Chapter I students, ones who could best benefit from one-to-one instruction, prior HOSTS involvement, those who had adequate language ability, or based on scheduling. Two of the three non-Chapter I schools also selected students based on Chapter I selection criteria while the third school selected students based on Special Education criteria. Thus, overall the type of student selected for HOSTS met Chapter I eligibility requirements.

Grades Served and Number of Students

The HOSTS program served students in grades K-8 with most students in grades 1-5 (Table 1). One school served kindergarten students, while three schools served students above grade 5. A total of 890 students received HOSTS services during the year, with approximately 700 students being served at any one time. The difference between the total number served and the number served at any one time reflects the mobility of students in and out of the program due to various reasons (availability of tutors, moving and different start-up times).

Staff

A total of 27 teachers (13.5 F.T.E.) and 35 aides (9.2 F.T.E) staffed the HOSTS program (Table 2). Each school HOSTS program was staffed by a certified teacher who served as HOSTS coordinator. The coordinator was responsible for testing students, writing long-range individual prescriptions and daily lesson plans, and supervising aides and tutors. Coordinators, with one exception, were assisted by one to three aides, depending upon the size of the program.

TABLE 1

HOSTS CHARACTERISTICS

SCHOOLS	GRADES	NUMBER OF STUDENTS	NUMBER OF TUTORS	TYPE OF TUTOR: COMMUNITY MEMBER	COLLEGE STUDENT	HIGH SCHOOL STUDENT	CROSS-AGE STUDENT	TEACHING STAFF AND AIDES
Abernethy	2-5	34	23	15	--	--	3	5
Beach	3-5	27	39	23	--	--	11	5
Boise	1-4	36	87	2	--	--	78	7
Creston	2-5	32	33	20	1	--	9	3
*Edwards[1]	2-5	20	12	11	--	--	--	1
George	2-3	33	102	17	1	--	70	14
Hout	2-5	33	22	9	--	--	9	4
*Hollyrood	K-3	16	29	19	--	5	5	--
Humboldt	2-4	53	21	9	7	--	--	5
Irvington	3-4	7	12	10	--	--	2	--
James John	2-4	39	119	25	--	--	88	6
King	1-5	56	75	31	--	--	20	24
Lane	2-4	27	35	24	--	--	8	3
Lent	2-8	19	30	11	--	--	17	2
Marysville	2-8	38	48	23	--	--	19	6
Rice	1-4	27	31	18	4	1	4	4
Richmond	2-5	31	27	18	--	--	4	4
Rieke	1-2	14	32	24	--	--	5	3
Rigler	3	11	22	19	--	--	[illegible]	3
Sabin	1-5	43	65	18	9	--	8	30
*Scott	2-5	34	27	11	--	--	12	4
Sitton	2-5	35	52	9	--	--	39	4
Vestal	1-4/7	39	152	12	5	2	30	3
Whitman	2-4	10	30	--	--	--	28	2
TOTAL		714	1024	378	27	8	469	142

*Non-Chapter I Schools

[1] The results for Edwards School were not included in the data interpretation because it is a year-round school and the number of days between the pre-test and post-test were not the same as the other schools.

TABLE 2

NUMBER AND FTE OF TEACHERS AND AIDES

IN HOSTS PROGRAMS

	TEACHERS		AIDES	
SCHOOL	NUMBER	FTE	NUMBER	FTE
Abernethy	1	.5	2	.4
Beach	1	.5	1	.25
Boise	1	.5	7	2.0
Creston	1	.5	1	.2
Edwards	1	.5	1	.5
George	1	.5	1	.25
Grout	1	.75	2	.5
Hollyrood	1	.5	1	.2
Humboldt	1	.5	1	.25
Irvington	1	.25	1	.1
James John	1	.5	1	.25
King	4	2.0	2	1.0
Lane	1	.6	1	.2
Lent	1	.25	1	.5
Marysville	1	.5	2	.5
Rice	1	.4	1	.25
Richmond	1	.25	3	.3
Rieke	1	.5	--	--
Rigler	1	.25	1	.15
Sabin	1	.75	1	.25
Scott	1	.5	1	.25
Sitton	1	1.0	1	.5
Vestal	1	.75	1	.25
Whitman	1	.2	1	.1
TOTAL	27	13.45	35	9.15

Staff Training

The HOSTS Corporation provided four days of training for teachers and aides at the beginning of the school year. In addition, the PPS District HOSTS coordinator, who was certified as a HOSTS trainer, spent a half-day in each school during 1982-83. The purpose of the school visitations was to check compliance with expected HOSTS program guidelines and to provide technical assistance. The information collected from the interviews was reviewed with the schools. HOSTS trainers were available on request during the year for school visitations.

The District HOSTS coordinator held two series of cluster meetings in 1982-83 to share ideas on teaching practices, recruiting volunteers, writing prescriptions, etc. In addition, a Teacher Inservice Credit workshop was held in November on HOSTS instructional practices. Finally, many staff attended a three-day HOSTS conference in Vancouver, Washington, in February.

TUTORS

A critical component of HOSTS is the use of tutors to instruct students on a one-to-one basis. Several pieces of information were collected about tutors, including the number and type of tutor, the amount of time tutor groups spent tutoring and tutor training.

Number and Type

A total of 1,024 tutors were working in HOSTS when the schools were surveyed in April-May, 1983. This included 469 (46 percent) cross-age students, 378 (37 percent) community members, 142 (14 percent) teaching staff and aides, 27 (3 percent) college students and 8 (1 percent) high school students. The total number of tutors who volunteered during the year was higher, but complete data are unavailable. These data indicate that nearly 40 percent of the volunteers were community members and 60 percent were resident students and staff.

Time Spent Tutoring

The amount of time any tutor actually spent tutoring ranged from one-half to 12 hours a week. In order to determine the relative contribution made by each tutor group, the amount of time each tutor group spent tutoring was determined. It was determined first by calculating the number of half-hour slots each school had in order to accommodate every HOSTS student with a tutor four days a week. For example, a HOSTS program which instructed 20 students for four days a week would have 80 slots (20 x 4 = 80 slots). Next, the number and percent of slots each of the five tutor groups filled were determined. A final category was included for slots which were unassigned, i.e., no tutor was scheduled. Students who were not assigned a tutor for a given day were usually placed in small group instruction.

The results in Table 3 show that out of a total of 2,829 half-hour slots, 1,144 (40 percent) were filled by community members, 724 (26 percent) were filled by teaching staff and aides, 581 (21 percent) were filled by cross-age tutors, 113 (4 percent) were filled by college students, 56 (2 percent) were filled by high school students and 241* (9 percent) slots were not filled and students received small group instruction.

An interesting piece of information is the amount of time that tutors from outside the school (community members, college students and high school students) spent tutoring was virtually equal to the time for tutors who came from within the schools (cross-age students, teaching staff and aides). Tutors from outside the school filled 45 percent of the tutor slots, while tutors from within filled 46 percent.

It is difficult to interpret these data without a definition of volunteering and expectations of the amount of support desired from different volunteer groups. However, it may be difficult to consider people from within the school as volunteers, since their time is either previously scheduled or otherwise compensated. Presently, one-fourth of the time spent tutoring is provided by teaching staff and aides and, together with the time spent

*This figure is somewhat misleading of the District as a whole, since one school had 145 unfilled slots where students were assigned to small group instruction.

TABLE 3

NUMBER AND PERCENT OF SLOTS FILLED BY TUTOR GROUPS

SCHOOLS	TOTAL SLOTS	COMMUNITY MEMBER		COLLEGE STUDENT		HIGH SCHOOL STUDENT		CROSS-AGE STUDENT		TEACHING STAFF AND AIDES		UNFILLED*	
		No. of Slots	Per-cent	No. of Slots	Per-cent	No. of Slots	Per-cent	No. of Slots	Per-cent	No. of Slots	Per-cent	No. of Slots	Per-cent
Abernethy	136	72	53%	--	--	--	--	3	2%	61	45%	--	--
Beach	108	74	69%	--	--	--	--	11	10%	5	5%	18	17%
Boise	144	6	4%	--	--	--	--	78	54%	60	42%	--	--
Creston	125	60	48%	6	5%	--	--	20	16%	27	20%	12	10%
Edwards	80	75	94%	--	--	--	--	--	--	5	6%	--	--
George	132	45	34%	4	3%	--	--	70	53%	13	10%	--	--
Grout	132	18	14%	--	--	--	--	16	12%	58	44%	40	30%
Hollyrood	64	33	52%	--	--	20	31%	11	17%	--	--	--	--
Humboldt	212	26	12%	34	16%	--	--	--	--	7	3%	145	68%
Irvington	28	25	89%	--	--	--	--	--	--	3	11%	--	--
James John	156	28	18%	--	--	--	--	94	60%	34	22%	--	--
King	224	76	34%	--	--	--	--	20	9%	128	57%	--	--
Lane	108	92	85%	--	--	--	--	9	8%	7	7%	--	--
Lent	76	26	34%	--	--	--	--	18	24%	32	42%	--	--
Marysville	141	60	43%	--	--	--	--	21	15%	49	35%	11	8%

*"Unfilled" represents the number of slots which did not have scheduled tutors. In most cases, students work on their HOSTS materials in small groups and, at times, students were tutored by a teacher or aide in the HOSTS program that was unscheduled at the time.

TABLE 3 (CONT.)

NUMBER AND PERCENT OF SLOTS FILLED BY TUTOR GROUPS

SCHOOLS	TOTAL SLOTS	COMMUNITY MEMBER		COLLEGE STUDENT		HIGH SCHOOL STUDENT		CROSS-AGE STUDENT		TEACHING STAFF AND AIDES		UNFILLED*	
		No. of Slots	Per-cent	No. of Slots	Per-cent	No. of Slots	Per-cent	No. of Slots	Per-cent	No. of Slots	Per-cent	No. of Slots	Per-cent
Rice	116	31	27%	24	21%	12	11%	8	7%	36	31%	5	4%
Richmond	123	68	55%	--	--	--	--	14	11%	41	33%	--	--
Rieke	56	46	82%	--	--	--	--	5	9%	5	9%	--	--
Rigler	44	37	84%	--	--	--	--	--	--	7	16%	--	--
Sabin	172	41	24%	28	16%	--	--	29	17%	64	37%	10	6%
Scott	116	100	86%	--	--	--	--	12	10%	4	4%	--	--
Sitton	140	44	31%	--	--	--	--	52	37%	44	31%	--	--
Vestal	156	31	20%	17	11%	24	15%	53	34%	31	20%	--	--
Whitman	40	--	--	--	--	--	--	37	93%	3	7%	--	--
TOTALS	2829	1144	40%	113	4%	56	2%	581	21%	724	26%	241	9%

*"Unfilled" represents the number of slots which did not have scheduled tutors. In most cases, students work on their HOSTS materials in small groups and, at times, students were tutored by a teacher or aide in the HOSTS program that was unscheduled at the time.

tutoring by cross-age students, provide as much total time as non-school volunteers. It is important for schools to consider the sources of their tutors in conjunction with their expectations about tutor recruitment to determine if changes in recruiting need to be made.

Tutor Training

A tutor training manual developed by HOSTS was provided to each school for use in training. All schools provided tutor training, ranging in time from a few minutes to three hours. Most schools conducted a Fall training session of 30-45 minutes followed by close supervision during initial tutoring sessions. HOSTS coordinators were always available for questions from tutors during the year.

HOSTS CURRICULUM

The HOSTS curriculum is designed as a reading program and consists of six major skill areas: reading readiness, phonetic analysis, structural analysis, vocabulary development, comprehension and study skills, Table 4. Reading readiness is further subdivided into eight subskill areas, while the other five goals are further subdivided by level of difficulty that roughly corresponds to grade level. Specific objectives are identified within each of the subgoals for reading readiness and within each of the difficulty levels for the other five goals. See Appendix A for complete HOSTS curriculum.

TABLE 4

HOSTS SURVEY OF DEVELOPMENTAL TASKS
MAJOR GOALS AND SUBGOALS

GOALS

1. Reading Readiness

SUBGOALS

Motor Coordination

Visual/Motor Coordination

Visual Perception

Visual Memory

Auditory Perception

Auditory Memory

Language Development

Conceptual Development

2. Phonetic Analysis

3. Structural Analysis

4. Vocabulary Development

5. Comprehension

6. Study Skills

MATCH OF PPS CURRICULUM CONTINUUMS WITH HOSTS OBJECTIVES

An interpretation of the achievement gains as measured by the PALT must take into consideration the match of skills taught in HOSTS with skills measured by the tests, i.e., the Portland curriculum. HOSTS should be expected to contribute to achievement gains if they address the same goals by which achievement is defined and measured.

The most thorough method for determining a match between a given instructional program and the skills in the Portland curriculum would correlate actual instructional materials with the Curriculum Continuum goal structure. Time did not permit such a detailed analysis. The alternative was to match the HOSTS curriculum objectives with the reading objectives of the Curriculum Continuums.

The task of matching HOSTS objectives in reference to objectives in the Curriculum Continuums was accomplished by two raters who divided the continuums by grade level--K-2 and 3-5. Objectives which the raters could not match were referred to a HOSTS program coordinator and HOSTS trainer who provided guidance in identifying the appropriate match, which, at times, involved reviewing HOSTS materials. The results are summarized in Appendix A.

Briefly, the results of the matching process were as follows.

Reading - K-2

There are four major categories under reading in the K-2 curriculum: foundation skills, word identification, comprehension and study skills. The categories are divided into components, which are further divided into elements by grade level. The match was conducted between the HOSTS objectives and elements by grade level.

Overall, HOSTS provides lessons for each of the four major categories under reading, K-2. The categories of word identification and comprehension are extensively covered, foundation skills are less well covered, while only slightly more than half of the elements in study skills are covered. In addition, some of the elements under study skills, specifically those of

reading efficiency and oral reading, do not have corresponding HOSTS objectives, but were considered to be covered within the context of the program.

Reading - 3-5

HOSTS provides lessons for each of the three major categories under reading, grades 3-5. Again, the categories of word identification and comprehension are very extensively covered while study skills is covered, but not as extensively. As in the K-2 curriculum, reading efficiency and oral reading are the less well covered components under study skills.

In summary, there appears to be a good match between the skills taught in HOSTS Reading curriculum with the skills listed in the Curriculum Continuums for reading. This is especially true of those parts of the continuums, e.g., comprehension, which are measured by the PALT.*

If a program contributes most effectively to achievement gains when the program addresses the same goals in the curriculum by which that achievement is defined and measured, then HOSTS should contribute effectively to achievement gains in Reading.

*A HOSTS program coordinator conducted a match between the HOSTS curriculum and the skills measured on the PALT. The results showed a good match, i.e., all goals and subgoals were covered except subgoal 4(2) Recognize elements of persuasion.

EFFECTS OF HOSTS PROGRAM

The evaluation conducted to investigate the effects of the HOSTS program compared the achievement gains of Chapter I students who were in the HOSTS program with three different populations: 1) Non-HOSTS, i.e., Chapter I students in the same grades and schools as HOSTS students who received other Chapter I reading instruction; 2) District Chapter I students; and 3) all District students. Next, the achievement growth of HOSTS students in 1982-83 was compared with their achievement growth in 1981-82. Student achievement was measured by the results of the Comprehensive Test of Basic Skills, Form S; Primary B and C (grade 2) in 1982-83; and the Portland Achievement Levels Tests (grades 3-8) in Fall and Spring of 1981-82 and 1982-83.

The District Chapter I program administers the Comprehensive Test of Basic Skills, Primary B and C, to grade 2 students for evaluation purposes because the PALT is not administered below grade 3. Primary B is administered in fall, and schools are given a choice of administering either Primary B and/or C in spring, depending upon their students' achievement levels.

The evaluation also investigated the relationship between student achievement and three variables: the type of tutor each HOSTS student had; the subject that students missed by attending HOSTS; and time in the program. Finally, the evaluation investigated the effect of tutoring on the cross-age tutors' own achievement. The data are presented in the following sections: grade 2; grades 3-8; the relationships between student achievement and tutor, subject missed, and time in the program; and the effect of tutoring on the tutors' own achievement.

GRADE 2

Table 5 shows the pre- and post-test means and gains for HOSTS, non-HOSTS and District Chapter I students in grade 2[1]. Data were available for 19 HOSTS schools and 31 District Chapter I schools. All scores are based on matched fall/spring scores. Results are expressed in terms of expanded scale score means and corresponding percentiles.

[1] Results in Table 5 reflect totals for students who took Primary B in fall and spring and for students who took Primary B in fall and C in spring. The process for converting the scores for students who took Primary B in Spring to in-level scores was to find their expanded scale score based on their raw score mean and convert it to the corresponding raw score on Primary C. Percentiles were determined based on the average raw score.

TABLE 5

GRADE 2

FALL 1982 AND SPRING 1983 EXPANDED SCALE SCORE AND PERCENTILES

FOR HOSTS, NON-HOSTS AND DISTRICT CHAPTER I STUDENTS

SCORE	GROUP	N	FALL	SPRING	GAIN
Expanded Scale Score	HOSTS	146	266	308	42
	Non-HOSTS	138	269	304	35
	District/Chapter I	339	261	302	41
Percentile	HOSTS	146	27.5%	38.5%	11.0%
	Non-HOSTS	138	29.7%	36.5%	6.8%
	District/Chapter I	339	24.0%	34.75%	10.75%

The results indicate that grade 2 HOSTS students made gains equivalent to District Chapter I students and numerically larger than non-HOSTS students; however, the difference is too small to be considered other than zero.

GRADES: 3-8

Student achievement was measured by fall and spring results of the PALT in reading and language usage. Data were included for students from twenty-two HOSTS schools who were in the program a minimum of 16 weeks. This represents half or more of the time between the beginning of school and the posttest date. Results for students in the program for less than sixteen weeks are not included in the tables but they are mentioned in this section of the report.

The results are reported in deviation scores, GROW and RATE scores for clear and intact groups. These terms are defined as follows:

1. Clear and intact groups include students who had fall and spring test scores for a given year (clear) and were enrolled at the same school in the fall and spring (intact). The deviation and GROW scores are based on one clear and intact group, while RATE scores are based on a 2-year clear group.

2. Deviations are group statistics showing the deviation of a group mean from the means of all RIT means in the District. RIT scores are equal interval, curriculum-based scores obtained from the PALT.

3. GROW is an index that represents the amount of achievement growth based in clear and intact groups in a given year. It shows the deviation of the groups' fall to spring gain from the mean gains of all grade-level groups in the District. A GROW score of zero would indicate a gain equal to the mean gain of other groups.

4. RATE is an index that represents the change in the amount of achievement growth in 1982-1983 as compared with 1981-1982. It also is based on a comparison of the difference in means for a group with the differences for all groups at that grade level in the District. It shows the deviation of year-to-year groups' gain from the mean gains of all grade-level groups in the District. For example, a student's score is included in the RATE interpretation if he has test scores for fall and spring of both 1981-82 and 1982-83 and attended HOSTS in 1982-83. He did not have to attend the same school in both years, nor does the school he attended in 1981-82 have

to be a school with a HOSTS program. Again, a RATE of zero would indicate a change in the rate of growth from one year to the next that is equal to the change in the rate of other groups.

The criteria for interpreting the GROW and RATE values are the same and shown in Table 6:

TABLE 6

INTERPRETATION OF GROW AND RATE VALUES

GROW/RATE VALUE	INTERPRETATION
-2.0 and below	Negative, significant loss
-2.0 to -1.7	Negative loss approaching significance
-1.6 to .7	Negative, non-significant loss
- .7 to .7	No gain or loss
.7 to 1.6	Positive, non-significant gain
1.7 to 2.0	Positive gain approaching significance
2.0 and above	Positive, significant gain

The results presented in Tables 7 and 8 show reading and language usage data respectively. All tables show clear and intact group means for HOSTS students for 1981-82 and 1982-83 by grade. In addition the tables show the total group means of students summed across grades for each group, thus producing an overall program total. Results for non-HOSTS and Chapter I students are presented as comparison groups. The Grades 3-8 results are presented in three sections: deviation means, GROW, and RATE. The results are:

Fall and Spring Deviation Means

Overall, the deviation means of all groups in Tables 7 and 8 show HOSTS (one year, two year, and total), non-HOSTS, and Chapter I students tend to be the lower performing students in 1981-82 and 1982-83. Non-HOSTS are not as low performing as the HOSTS and Chapter I groups.

GROW

As mentioned previously, GROW represents the standardized amount of achievement gain in a given year. The 1982-83 results show students who were in the program for one year showed positive, non-significant gains in reading and language usage. Two-year students had a positive, non-significant gain in reading and no gain or loss in language usage. When data from one-year and two-year HOSTS students are combined, the results show positive non-significant gains in reading and language usage. Chapter I as well as non-HOSTS students show no gain or loss in reading and language usage, and their gains are smaller than those of HOSTS students.

RATE

As mentioned previously, RATE represents the change in the rate of growth from one year to the next. The results for students who were in the program one year show a positive, non-significant gain in their rate of growth in reading and language usage. Two-year students show no gain or loss in reading and a positive, non-significant gain in language usage. When data from one-year and two-year students are combined, the results show no gain or loss in the rate of growth in reading and a positive, non-significant gain in language usage. Chapter I and non-HOSTS show no gain or loss in rate of growth in reading and language usage and their gains are smaller than those of HOSTS students.

Data for HOSTS students, regardless of time in the program (although not shown), were analyzed. The results include data from students who were in HOSTS less than 16 weeks as well as more than 16 weeks. As a group they represent a more equivalent comparison group to District Chapter I since no time requirement was imposed on the latter group. When the results of HOSTS students, regardless of time, were calculated, they were essentially unchanged. Thus, the exclusion of data for students in HOSTS less than 16 weeks does not affect the comparisons with District Chapter I.

EFFECTS: NON-ACHIEVEMENT VARIABLES

The evaluation investigated the relationship between student achievement and three variables: weeks in the program (time), type of tutor, and the subject students missed to attend HOSTS.

Weeks In The Program - Time

Pearson Product Moment correlations were performed between weeks in the program and reading and language usage gain in 1982-83. The results indicated no significant correlation between weeks in the reading program and reading gain ($r = .00$) or language usage gain ($r = -.07$).

Students were then divided into three groups (16-22 weeks, 23-27 weeks, 28-31 weeks) to determine if students enrolled in HOSTS for longer periods had larger gains than students in for shorter periods. Table 9 shows the reading and language usage standard deviation means for HOSTS students for the last two years by weeks. Overall, the results for 1982-83 show students had comparable reading gains regardless of the time interval. In language usage, students who were in the program for 23-27 weeks had larger gains than students enrolled for the longer or short time intervals.

Examination of the data revealed a possible explanation for the apparent lack of relationship between weeks in the program and either reading or language usage gain. The data show each school is not equally represented among the time intervals, and each time interval is over-represented by a few schools. Therefore, no defensible statement can be made about the relationship between time and either reading or language usage gains because each school is not equally represented in each time interval making it difficult to rule out a school effect.

TUTOR

Schools were asked to keep records on the type of tutor instructing each HOSTS student. Tutors were classified into eight categories: community member, college student, high school student, cross-age student, teaching staff (includes instructional aides), a 'mixed' category which indicated that a student had more than one type of tutor, other, and no tutor. The categories mean students were instructed by the same type of tutor, but it does not mean that the same tutor worked with the student every day. In fact, most students were instructed by different tutors each day of the week. The number of students tutored by college and high school students, other, and no tutor categories was small, so their data were eliminated from the analysis.

Table 10 shows the reading and language usage deviation means for HOSTS students for the last two years by tutor. The reading results for 1982-83 show students who had cross-age tutors made numerically larger gains than students who had community members or 'mixed' tutors; however, the gains of all three are interpreted as positive, but non-significant. Students who had staff tutors made no gain or loss. In language usage, students who had community members as tutors made positive, non-significant gains while students having cross-age, staff or 'mixed' tutors showed no gain or loss.

The change in the RATE of growth made in 1982-83 compared to 1981-82 for students in the tutor groups was calculated. Results are reported for only the community member, staff, and mixed groups since the sample size for other tutor groups was too small to interpret. The reading results show students who had staff tutors made positive, non-significant gains while students having either community members or 'mixed' tutors showed no gain or loss. In language usage, students who had staff tutors made positive, significant gains while students having community members or 'mixed' tutors had positive, non-significant gains.

SUBJECT MISSED

Schools identified and classified the subject missed into five categories: reading instruction, reading seatwork, mathematics, language usage, and "other." The number of students who missed reading instruction or math was small and their data were eliminated from the analysis.

Table 11 shows the standard deviation means for subject missed over the last two years. The 1982-83 reading results show students who missed 'other' subjects made numerically larger gains than students who missed language usage; however, the gains of both are considered positive, non-significant. Students who missed reading seatwork showed no gain or loss. The 1982-83 language usage results show students who missed language usage subjects made numerically larger gains than students who missed 'other' subjects or reading seatwork; however, the gains of all three can be interpreted as positive, non-significant.

The change in the RATE of growth made in 1982-83 compared to 1981-82 for students in subject missed groups was calculated. The reading results show students who missed language usage made positive gains approaching significance; students who missed 'other' subjects made no gain or loss; and students who missed reading seatwork made a negative, non-significant gain. In language usage, students who missed reading seatwork, language usage, or 'other' subjects made positive, non-significant gains although students missing 'other' subjects made numerically smaller gains.

EFFECT OF TUTORING ON THE CROSS-AGE TUTORS' OWN ACHIEVEMENT

There were 536 students who tutored in HOSTS.[1] Most were enrolled in the HOSTS school where they tutored, although a few middle school students traveled to neighboring HOSTS elementary school sites (Hosford, Beaumont, Fernwood, Kellogg). The tutors were distributed across grades three through eight, with 70 percent drawn from grades five, six and seven. Students were selected as tutors on the basis of a variety of criteria, among which were teacher recommendation and time availability. An interview with one HOSTS coordinator revealed that when a student chose tutoring as an elective and tutoring involved independent travel to the HOSTS school, the student's ability to manage himself/herself responsibly was an added criterion before the choice was approved. While the range of time cross-age students tutored per week was .5 to 2.0 hours, the modal was one-half hour per week. Students tutored for a minimum of nine weeks.

Tutor academic achievement was assessed by fall and spring administrations of the Portland Achievement Levels Tests in reading and math. Since reading is the focus of the HOSTS program, reading achievement scores would probably be most influenced. Language usage scores are included only secondarily because of the general skills shared by reading and language, as well as the oral expression skills involved in tutoring.

RESULTS

Data were available for 492 of the 536 cross-age tutors at the time of the evaluation: 8 third graders, 35 fourth graders, 101 sixth graders, 151 seventh graders and 78 eighth graders. Tutor names were not available from four of the 21 schools using cross-age tutors.

The results presented in Tables 12 and 13 show clear and intact group means for cross-age tutors for 1982-1983 in reading and language usage respectively. In addition the tables show the total group means of students summed across grades, thus producing an overall program total.

[1] This number differs from the number in Table 1, which refers to the number of tutors during a specific time period.

The results are reported in fall and spring deviation scores and GROW scores. Overall the results show that the tutors' mean fall and spring achievement levels are within the District average in reading and language usage. The 1982-83 GROW results show that although there are significant differences between grade levels, overall tutors had no gain or loss in reading and language. When the data are grouped into elementary (grades 3-5) and middle school (grades 6-8) aged tutors, Table 14, middle school aged tutors made numerically larger gains than elementary aged tutors in both reading and language usage, although the differences are not considered significant.

CONCLUSIONS

1. The results from achievement records in twenty-three Portland elementary schools where HOSTS was used in grades 3-8 as Chapter I or Chapter I-type supplementary programs show HOSTS students' gains are larger than those of other student groups at the same grade levels district-wide, but not to a significant degree.

2. Results comparing the achievement gains of students in HOSTS in grades 3-8 with gains of students in all other Chapter I supplementary programs and non-HOSTS Chapter I students show HOSTS students making more progress in basic skills achievement, though the difference between the gains are not enough to be considered significant.

3. Results comparing the gains of Chapter I second grade students in HOSTS with gains of other District Chapter I second grade students and non-HOSTS Chapter I second grade students show that the differences among the three groups are so small that their performances are essentially equivalent.

4. The gain of HOSTS students who participated in the reading program for two full years (1981-82 and 1982-83) is numerically less than the performance of students who participated in HOSTS for only one year (1982-83) in reading (but not to a significant degree). In language usage, the performance of two-year students was neither better or worse than one-year students.

5. No relationship was found between the number of weeks students participated in HOSTS and the amount of achievement gain made in 1982-83.

6. When the curriculum goals of HOSTS are compared with the objectives of the Portland Curriculum Continuums, there is a good match for reading in grades K-5.

7. Cross-age tutors account for almost half of the entire tutor population and over one-fifth the total amount of tutor time.

8. The achievement gains of cross-age tutors show they are at least equivalent to those of all student groups at the same grade levels district-wide in 1982-83.

9. The most reasonable conclusion based on these findings is that HOSTS produced positive, non-significant gains which is better than the average of other Chapter I supplementary programs, but it is not significantly better.

RECOMMENDATIONS

The evidence for the last two years suggests that compared to other supplemental programs, HOSTS has generally been a more effective supplement to instruction in the basic skills, but not significantly better.

A significant element of HOSTS is the tutor. The number of cross-age tutors and the percent of time they spent tutoring raises questions about possible negative and/or positive effects on these tutors.

Accordingly, the following recommendations are made:

1. The District continue implementation of HOSTS within the guidelines established by the program and continue the evaluation of it.

2. A systematic investigation be conducted to identify the reasons and intentions for selecting students as cross-age tutors and the effect on their subsequent achievement.

3. Efforts should be made to increase tutor participation, especially community members, to ensure every HOSTS student has a tutor daily and to increase the number of students served.

4. Continue the evaluation for 1983-84 to determine if the introduction of computers as an aid to the management of the program impacts student achievement.

TABLE 7
READING STANDARD DEVIATION MEANS FOR
HOSTS, NON-HOSTS, AND CHAPTER I STUDENTS BY GRADE

GRADE/GROUP	N	FALL 1981	SPRING 1982	N	FALL 1982	SPRING 1983	GROW 1981-82	GROW 1982-83	N	RATE
3 HOSTS										
ONE YEAR	0	-	-	81	-3.25	-3.12	-	0.31	18	0.01
TWO YEAR	1	-5.89	-4.75	73	-3.07	-2.72	3.33	0.89	12	-0.62
TOTAL	1	-5.89	-4.75	154	-3.17	-2.93	3.33	0.58	30	-0.24
NON-HOSTS	0	-	-	84	-1.48	-1.47	-	-0.02	10	0.01
4 HOSTS										
ONE YEAR	30	-3.45	-3.26	43	-2.88	-2.47	0.53	1.18	31	-0.23
TWO YEAR	25	-3.31	-3.43	38	-3.78	-3.47	-0.39	0.91	28	1.24
TOTAL	55	-3.39	-3.34	81	-3.31	-2.94	0.11	1.06	59	0.47
NON-HOSTS	31	-2.05	-1.87	49	-1.93	-2.11	0.50	-0.56	35	-0.56
5 HOSTS										
ONE YEAR	8	-2.60	-2.96	13	-2.53	-2.31	-1.13	0.76	13	1.33
TWO YEAR	33	-3.51	-3.02	34	-3.02	-2.57	1.51	1.54	34	-0.21
TOTAL	41	-3.33	-3.01	47	-2.88	-2.50	1.00	1.33	47	0.22
NON-HOSTS	13	-2.35	-2.33	22	-2.38	-3.00	0.06	-2.16	14	-0.72
6 HOSTS										
ONE YEAR	3	-1.19	-1.70	4	-2.11	-2.07	-1.50	0.13	4	1.26
TWO YEAR	3	-4.14	-3.50	3	-2.22	-2.99	1.93	-3.04	3	-3.97
TOTAL	6	-2.67	-2.60	7	-2.16	-2.46	0.22	-1.23	7	-0.98
NON-HOSTS	1	-2.08	-2.40	1	-0.74	-1.99	-0.93	-4.98	1	-2.66
7 HOSTS										
ONE YEAR	2	-0.38	-1.16	4	-3.27	-1.98	-2.66	5.76	2	7.61
TWO YEAR	5	-3.40	-3.00	6	-2.31	-2.22	1.38	0.39	5	-1.37
TOTAL	7	-2.53	-2.47	10	-2.69	-2.12	0.22	2.54	7	1.19
NON-HOSTS	0	-	-	0	-	-	-	-	0	-
8 HOSTS										
ONE YEAR	4	-2.51	-3.63	5	-2.94	-2.04	-4.50	4.00	5	4.74
TWO YEAR	2	-3.28	-3.39	2	-2.65	-2.04	-0.43	2.74	2	2.31
TOTAL	6	-2.77	-3.55	7	-2.86	-2.04	-3.15	3.64	7	4.04
NON-HOSTS	2	-0.55	-0.26	2	-0.08	0.65	1.16	3.25	2	-0.48
TOTAL HOSTS										
ONE YEAR	47	-2.95	-3.05	150	-3.04	-2.77	-0.45	0.86	73	0.75
TWO YEAR	69	-3.48	-3.22	156	-3.18	-2.85	0.80	0.96	84	0.07
TOTAL	116	-3.27	-3.15	306	-3.11	-2.81	0.30	0.92	157	0.39
NON-HOSTS	47	-2.07	-1.94	158	-1.72	-1.86	0.37	-0.47	62	-0.48
CHAPTER I	876	-3.09	-2.87	1461	-2.80	-2.65	0.72	0.46	1064	-0.18

TABLE 8

LANGUAGE STANDARD DEVIATION MEANS FOR HOSTS, NON-HOSTS, AND CHAPTER I STUDENTS BY GRADE

GRADE/GROUP	N	FALL 1981	SPRING 1982	N	FALL 1982	SPRING 1983	GROW 1981-82	GROW 1982-83	N	RATE
3 HOSTS										
ONE YEAR	0	-	-	82	-3.08	-2.99	-	0.26	17	0.01
TWO YEAR	0	-	-	74	-2.83	-3.10	-	-0.72	10	0.01
TOTAL	0	-	-	156	-2.96	-3.04	-	-0.21	27	0.01
NON-HOSTS	0	-	-	82	-1.47	-1.50	-	0.08	12	0.01
4 HOSTS										
ONE YEAR	28	-3.03	-3.50	46	-3.41	-2.77	-1.17	1.87	30	1.74
TWO YEAR	25	-3.49	-3.70	37	-4.08	-3.79	-0.50	0.85	29	0.97
TOTAL	53	-3.25	-3.59	83	-3.71	-3.23	-0.85	1.41	59	1.36
NON-HOSTS	32	-1.85	-1.82	50	-1.89	-1.75	0.07	0.46	37	0.28
5 HOSTS										
ONE YEAR	7	-3.22	-2.96	14	-3.28	-2.60	0.79	1.96	11	0.92
TWO YEAR	31	-3.23	-2.90	33	-3.20	-2.51	0.99	1.99	33	0.98
TOTAL	38	-3.23	-2.91	47	-3.22	-2.54	0.95	1.98	44	0.96
NON-HOSTS	14	-1.54	-1.64	17	-2.82	-3.53	-0.25	-1.99	16	-1.34
6 HOSTS										
ONE YEAR	3	-1.15	-1.87	4	-1.80	-1.07	-2.05	3.12	4	2.22
TWO YEAR	3	-2.99	-2.93	3	-2.82	-1.97	0.18	3.60	3	2.08
TOTAL	6	-2.07	-2.40	7	-2.24	-1.46	-0.93	3.33	7	2.16
NON-HOSTS	1	-2.99	-4.03	1	-6.37	-3.68	-2.98	11.60	1	9.65
7 HOSTS										
ONE YEAR	2	-1.93	-1.78	4	-2.97	-2.77	0.38	0.81	2	-0.86
TWO YEAR	5	-2.22	-2.13	5	-2.42	-0.91	0.23	5.92	6	2.71
TOTAL	7	-2.14	-2.03	9	-2.67	-1.73	0.27	3.65	8	1.81
NON-HOSTS	0	-	-	0	-	-	-	-	0	-
8 HOSTS										
ONE YEAR	4	-2.35	-2.16	5	-3.11	-1.24	0.36	7.17	5	2.37
TWO YEAR	2	-1.91	-1.94	2	-2.15	-0.92	-0.10	4.74	2	2.72
TOTAL	6	-2.20	-2.09	7	-2.84	-1.15	0.21	6.47	7	2.47
NON-HOSTS	2	-1.58	-1.13	2	-0.28	-0.29	0.92	-0.01	2	-0.90
TOTAL HOSTS										
ONE YEAR	44	-2.82	-3.10	155	-3.16	-2.78	-0.71	1.20	69	1.18
TWO YEAR	66	-3.20	-3.12	154	-3.19	-3.02	0.30	0.61	83	1.06
TOTAL	110	-3.05	-3.11	309	-3.17	-2.90	-0.10	0.91	152	1.12
NON-HOSTS	49	-1.77	-1.79	152	-1.78	-1.81	-0.05	-0.04	68	-0.05
CHAPTER I	354	-3.18	-2.64	478	-2.79	-2.55		0.83	420	-0.16

TABLE 9
READING, LANGUAGE USAGE STANDARD DEVIATION MEANS FOR HOSTS STUDENTS BY WEEKS

SUBJECT/GROUP	N	FALL 1981	SPRING 1982	N	FALL 1982	SPRING 1983	GROW 1981-82	GROW 1982-83	N	RATE
READING										
16-22	16	-3.26	-2.67	43	-3.02	-2.73	1.73	0.73	30	-1.13
23-27	56	-3.14	-3.25	158	-3.10	-2.82	-0.41	1.00	78	1.12
28-31	47	-3.33	-3.16	105	-3.17	-2.83	0.54	0.86	49	0.13
LANGUAGE										
16-22	17	-3.08	-3.03	45	-3.00	-2.88	0.22	0.54	26	0.58
23-27	54	-3.13	-3.01	159	-3.21	-2.80	0.35	1.28	77	0.99
28-31	43	-2.84	-3.12	105	-3.20	-3.05	-0.66	0.49	49	1.61

TABLE 10
READING, LANGUAGE USAGE STANDARD DEVIATION MEANS FOR HOSTS STUDENTS BY WEEKS

SUBJECT/GROUP	N	FALL 1981	SPRING 1982	N	FALL 1982	SPRING 1983	GROW 1981-82	GROW 1982-83	N	RATE
READING										
Community Member	41	-3.39	-2.83	118	-3.37	-3.08	1.74	0.94	52	-0.31
College Students	3	-4.58	-4.53	5	-3.81	-3.46	0.12	1.00	4	0.77
High School Students	0	-	-	1	-1.78	0.39	-	5.66	-	-
Cross-Age	16	-3.25	-3.15	22	-3.47	-2.98	0.23	1.45	20	0.45
Staff	16	-2.71	-3.05	41	-2.72	-2.66	-1.23	0.33	25	1.19
Mixed	34	-3.20	-3.29	95	-2.89	-2.58	-0.30	0.84	46	0.43
Other	2	-2.58	-2.42	9	-2.88	-2.18	0.39	2.01	2	2.01
No Tutor	7	-3.20	-3.86	15	-3.07	-2.68	-2.32	0.96	8	1.39
LANGUAGE USAGE										
Community Member	39	-3.22	-2.89	118	-3.49	-3.08	0.96	1.31	52	1.21
College Student	3	-4.40	-4.44	5	-3.51	-3.15	-0.09	1.02	4	0.23
High School Student	0	-	-	1	-1.92	-3.27	-	-3.69	0	-
Cross-Age	17	-3.16	-2.76	23	-3.54	-3.38	1.03	0.51	19	0.18
Staff	16	-1.88	-2.68	43	-2.85	-2.79	-2.15	0.49	25	2.25
Mixed	32	-3.12	-3.21	95	-2.84	-2.67	-0.13	0.58	44	0.70
Other	0	-	-	9	-3.06	-1.87	-	3.30	0	-
No Tutor	7	-3.04	-4.26	15	3.23	-3.02	-3.11	0.45	8	1.94

TABLE 11
READING, LANGUAGE USAGE STANDARD DEVIATION MEANS FOR HOSTS STUDENTS BY WEEKS

SUBJECT/GROUP	N	FALL 1981	SPRING 1982	N	FALL 1982	SPRING 1983	GROW 1981-82	GROW 1982-83	N	RATE
READING										
Read Inst.	2	-4.65	-2.96	8	-3.86	-3.63	5.22	1.04	3	0.65
Read Seat.	30	-3.46	-3.09	94	-3.09	-2.95	1.07	0.29	43	-0.72
Math	9	-3.46	-3.66	11	-3.07	-3.20	-0.55	-0.53	9	-0.76
Lang. Usage	20	-2.96	-3.56	63	-2.94	-2.73	-2.01	0.77	35	1.74
Other	58	-3.13	-2.93	126	-3.20	-2.71	0.57	1.50	66	0.54
LANGUAGE										
Read Inst.	2	-3.72	-2.21	8	-4.04	-4.13	4.36	-0.22	3	-3.01
Read Seat.	27	-2.77	-2.74	96	-3.06	-2.75	0.10	1.06	42	1.42
Math	8	-3.34	-4.67	12	-3.39	-3.67	-3.29	-0.73	7	2.49
Lang. Usage	20	-2.85	-3.09	63	-3.17	-2.74	-0.60	1.42	35	1.41
Other	57	-3.12	-3.00	126	-3.22	-2.98	0.37	0.73	64	0.82

TABLE 12

READING STANDARD DEVIATION MEANS FOR HOSTS CROSS-AGE TUTORS

GRADE	N	FALL '82	SPRING '83	GROW 82-83
3	6	0.41	-0.01	-1.11
4	33	0.44	0.04	-1.21
5	111	0.20	0.10	-0.36
6	95	0.05	0.33	1.31
7	143	0.14	0.11	-0.03
8	76	-0.84	-0.70	0.83
TOTAL	464	0.00	0.01	0.14

TABLE 13

LANGUAGE USAGE STANDARD DEVIATION MEANS

FOR HOSTS CROSS-AGE TUTORS

GRADE	N	FALL '82	SPRING '83	GROW 82-83
3	6	0.32	-0.32	-1.73
4	33	0.63	-0.02	-1.88
5	107	0.42	0.20	-0.59
6	95	0.38	0.52	0.64
7	140	0.11	0.20	0.35
8	75	-0.67	-0.73	-0.21
TOTAL	456	0.15	0.09	-0.09

TABLE 14

READING AND LANGUAGE USAGE GROW SCORES

FOR ELEMENTARY AND MIDDLE SCHOOL AGED TUTORS

SUBJECT/GROUP	N	GROW
READING		
Elementary	150	-0.58
Middle School	314	0.48
LANGUAGE USAGE		
Elementary	146	-0.92
Middle School	310	0.30

5373E
12/14/83